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ORGANIC ELECTRONIC ELEMENT MATERIAL

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#### ABSTRACT

PURPOSE: To obtain an organic electronic element material having anisotropy of electrical conduction controllable at molecular level, by using a functional molecule containing a functional group having electron-transmission ability in the molecule and transmitting electron between the functional groups according to a quantum mechanical tunneling mechanism.

CONSTITUTION: The objective organic electronic element substance is composed of a functional molecule containing plural functional groups having electron transmission ability in the molecule and disposed in a manner that electron can be transmitted between the functional groups or composed of plural number of functional molecules each having one functional group and disposing the compounds in a manner that electron can be transmitted between said functional groups. The functional group is an oxidation-reduction substance selected from porphyrin derivatives, phthalocyanine derivatives, isoalloxazine derivatives, viologens and organometallic complexes. The skeleton of the functional molecule is a polymeric compound, a fatty acid or a cyclic organic compound.

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